RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY COMMENTS IMPACTED MATERIALS PLACEMENT PLAN FOR THE ON-SITE DISPOSAL FACILITY REVISION H

1). Commenting Organization: US EPA Commentor: Saric
Section: Gen. Comment Pg.: Line: Code: M
Original Comment No.: 1

Comment: Despite U.S. DOE's justification and calculations regarding placement of oversized structural steel in the OSDF, and consistent with the Ohio Environmental Protection Agency, U.S. EPA does not concur with the placement of oversized materials in the OSDF. The larger materials should either be disposed off-site, or cut down to more manageable lengths and either recycled or disposed in the OSDF.

Response: DOE agrees to remove the current reference in the IMP Plan related to placement of oversized materials in the OSDF. This is based on DOE's understanding that US EPA and Ohio EPA do not, at this time, support any revision to the physical waste acceptance criteria for debris to be placed in the OSDF. DOE will specifically evaluate the referenced materials relative to the technical and economic feasibility of recycle/reuse options. It will be DOE's stated goal to reuse or recycle these materials if shown to be technically and economically feasible. If this goal is not feasible, DOE believes it would be appropriate to revisit the issue of material-specific revisions to the OSDF physical WAC.

Action: All references to placement of oversized materials in the OSDF have been removed and the *Specialized Placement Plan No. 1 Oversized Metals and Overlength Structural Steel Beams/Columns* has been canceled.

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS IMPACTED MATERIALS PLACEMENT PLAN FOR THE ON-SITE DISPOSAL FACILITY REVISION H

1) Commenting Organization: Ohio EPA Commentor: OFFO
Section: Gen. Comment Pg.: Line: Code: M
Original Comment No.: 1

Comment: Ohio EPA disagrees with DOE's proposal to exceed the waste acceptance criteria with Oversized Debris. As stated in both Ohio EPA's concurrence letters and numerous citizens comments on the various RODs incorporating on-site disposal, the waste acceptance criteria are measures not to be exceeded. Therefore, Ohio EPA will not approve the Impacted Materials Placement Plan unless reference to placement of oversized materials in the OSDF is removed.

Response: DOE agrees to remove the current reference in the IMP Plan related to placement of oversized materials in the OSDF. This is based on DOE's understanding that US EPA and Ohio EPA do not, at this time, support any revision to the physical waste acceptance criteria for debris to be placed in the OSDF. DOE will specifically evaluate the referenced materials relative to the technical and economic feasibility of recycle/reuse options. It will be DOE's stated goal to reuse or recycle these materials if shown to be technically and economically feasible. If this goal is not feasible, DOE believes it would be appropriate to revisit the issue of material-specific revisions to the OSDF physical WAC.

Action: All references to placement of oversized materials in the OSDF have been removed and the *Specialized Placement Plan No. 1 Oversized Metals and Overlength Structural Steel Beams/Columns* has been canceled.

2) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 1.2 Pg.: 1-1 Line: 15 Code: C
Original Comment No.: 2

Comment: The text states that approximately 80 percent of the expected OSDF material will be impacted soil. This conflicts with the estimated total of 85 percent on Page 7-1, line 5.

Response: The correct estimate is 85 percent soil and soil-like material. Section 1.2 will be corrected.

Action: The sentence has been revised to read, "Approximately 85 percent of this material is impacted soil or soil-like material, with the remainder consisting of building demolition debris, lime sludge, municipal solid waste, and small quantities of miscellaneous other materials."

3) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 2.2 Pg: 2-1 Line: 21 Code: C
Original Comment No.: 3
Comment: Add a citation to OAC 3745-31-05(A)(3) for employing Best Available Technology (BAT) for controlling emissions from new sources of air pollution.

Response: Agreed. The requested citation will be added to the table in Section 2.2.

Action: OAC 3745-31-05(A)(3) has been added to the table in Section 2.2.

4) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 2.4 Pg: 2-3 Line: 40 Code: C
Original Comment No.: 4
Comment: Add a line to this large bullet committing to the deployment of BAT for the control of emissions.

Response: Agreed. A bullet committing to use of the FEMP BAT determination for the control of fugitive dust will be added.

Action: A bullet has been added that reads, "Fugitive dust will be controlled through the implementation of the BAT determination for remedial construction activities on the FEMP site."

5) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 3.2 Pg.: 3-2, Fig. 3.1 Line: Code: E
Original Comment No.: 5
Comment: For clarity the figure should be identified as a cross-section.

Response: Agreed. The figure will be identified as a cross-section.

Action: The figure title will be changed to add "(North-South Cross Section Shown)".

6) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section : 5.2 Pg.: 5-1 Line: 19-22 Code: E
Original Comment No.: 6
Comment: The sentence beginning on line 19 is unclear.

Response: Agreed. The sentence will be revised to more clearly state the requirements for Category 1.

Action: The sentence has been revised to read, "If the material is other than till or ash, it must also have at least 80 percent of its particles finer than a 1 in. (25 mm) particle size."

7) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section : 5.2 Pg.: 5-1 Line: 23 Code: E
Original Comment No.: 7
Comment: The word "compatible" does not make sense in the sentence. It is likely a typo of "compacted."

Response: The word "compatible" is a typographical error. It should read "compactible."

Action: The word "compatible" has been replaced with "compactible" in the descriptions for Category 1 and Category 2.

8) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section : 5.2 Pg.: 5-1 Line: 28 Code: E
Original Comment No.: 8
Comment: The word "compatible" does not make sense in the sentence. It is likely a typo of "compacted."

Response: See response to Comment No. 7.

Action: See action to Comment No. 7.

9) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 6.7 Pg.: 6-5, Fig. 6-1 Line: Code: C
Original Comment No.: 9
Comment: The annotation for Figure 6-1 (1), "3 FT SELECT IMPACTED WASTE" should be revised to, "2- OR 3-FT SELECT IMPACTED WASTE" to be consistent with the text and Figure 3-1. Also, the 3:1 lift slope down toward the intercell berm is shown to intersect with the beginning of the intercell berm. This conflicts with Figure 6-2, which shows a protective zone of select impacted material (unknown thickness) as the point of intersection. Will the intercell berm be protected by a layer of select impacted material, and if so, how much?

Response: The annotation for the select impacted waste layer will be changed to "2 OR 3 FT SELECT IMPACTED MATERIAL" to be consistent with Figure 3-1. Use of the word "material" in place of "waste" is consistent with the rest of IMP Plan. The apparent inconsistency between Figures 6-1 and 6-2 may be due to the differing terminology of "select impacted material" versus "select impacted waste." These two terms are referring to the same material and both figures will be clarified. The intercell berm will be protected by the 2- or 3-foot select impacted material layer. The 3:1 slope has been changed to 3.5:1 to provide a safer operation. The 3.5:1 slope will intersect with the beginning of the intercell berm until the next sequence of impacted material placement, which begins with installation of the select impacted material to protect the intercell berm, is started.

Action: The annotation for the select impacted waste layer has been changed to "2 OR 3 FT SELECT IMPACTED MATERIAL" in both Figures 6-1 and 6-2.

10) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 6.7 Pg.: 6-6, Fig. 6-2 Line: Code: C
Original Comment No.: 10
Comment: See above comments on Figure 6-1.

Response: See response to Comment No. 9.

Action: See action to Comment No. 9.

11) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 and 8.4.2 Pg: 8-2,3 Line: Code: general
Original Comment No.: 11
Comment: The discussion of the placement and compaction procedures for Category 3 items is somewhat ambiguous. Ohio EPA has attempted to articulate our comments in the specific comments section, but it may be easier to re-write the entire section. Category 3 is defined as items that are incompressible, require individual placement, and are no more than 4 feet thick. However, Category 3 also includes structural steel members that are no longer than 10 feet. The discussion might be more easy to follow if items that truly require individual handling (such as transite bundled to pallets and blocks of concrete) were explained separately from the structural steel members. The discussion should cover the placement, spacing, compaction, performance specifications, etc. A figure similar to Figure 8-1 should be prepared for structural steel members.

Response: The structural steel included in the Category 3 description refers to the pieces that are <u>longer</u> than 10 feet. This was not clearly explained in the Impacted Materials Placement Plan. Structural steel that is 10 feet or shorter in length is classified as Category 2. Therefore, since the overlength steel (greater than 10 feet long) is being deleted from this plan (see response to Comment No. 1), the placement and compaction procedures for Category 3 will be limited to those items requiring individual handling.

Action: The placement, spacing, compaction, and performance specifications for overlength structural steel have been deleted from the Category 3 discussion.

12) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 and 8.4.2 Pg.: Line: Code: general
Original Comment No.: 12
Comment: There are currently tangled masses of re-bar stored on the Plant 1 pad. Please describe which material category these masses fall under and the placement procedures for them.

Response: The concrete and rebar currently stored on the Plant 1 pad will be classified as Category 2 and will placed according to the procedures outlined in Section 8.3 of the IMP Plan. Any concrete/rebar that is currently greater than 18 inches high or 10 feet long will be size reduced (e.g., crushed) before disposal to meet the Category 2 size requirements.

Action: No action.

13) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 Pg.: 8-2 Line: 38 Code: C
Original Comment No.: 13
Comment: The reasons for the spacing requirements for structural steel beams/columns/pipe sections are not obvious. The separation for pieces with cross-sections greater than 9 inches are two feet but the separation for pieces less than 9 inches in cross-section is only three inches. Please provide a discussion of these spacing requirements

Response: Because oversized material and overlength steel are not being disposed in the OSDF, the text referenced in this comment is being deleted. (See response to Comment No. 11 also.)

Action: Discussions of Category 3 structural steel have been deleted.

14) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 Pg.: 8-2 Line: 43 Code: C
Original Comment No.: 14
Comment: The Plan describes the placement of deformed structural steel and states that they will be placed such that they lay flat. It is easy to imagine 'cork-screwed' pieces of steel that will not lay flat. How will 'cork-screwed' steel be placed? Are there 'straightness' specifications for structural steel that Operable Unit 3 must meet prior to transportation to the OSDF? The general description of Category 3 material requires a cross-section of less than four feet. Is this to be interpreted to mean that structural members can be cork-screwed at a maximum of four feet out of a flat plane?

Response: Because overlength structural steel (i.e., Category 3 structural steel) will not be disposed in the OSDF, structural steel must meet the size requirements of Category 2 (10 feet long and 18 inches high). Therefore, if a structural steel member is 'cork-screwed' such that it exceeds the 18-inch height requirement, it must be size reduced before disposal at the OSDF. (See response to Comment No. 11 also.)

Action: No action.

15) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 Pg.: 8-3 Line: 7 Code: C
Original Comment No.: 15
Comment: The Plan states that Category 3 items will be placed with an adequate spacing between items to allow Category 1 material to be placed and compacted with available equipment. Describe how this is to be achieved in the case of structural steel with members with a cross-section of less than 9 inches and a separation distance of only three inches.

Response: See response to Comment No. 11.

Action: No action.

16) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.1 Pg.: Line: 19 Code: C
Original Comment No.: 16
Comment: Does the four foot spacing between horizons of Category 3 material apply to structural steel?

Response: See response to Comment No. 11.

Action: No action.

17) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.4.2 Pg.: 8-3 Line: 42 Code: C
Original Comment No.: 16
Comment: Elaborate here on the specifics of the performance specifications (two inch ruts maximum and no visible deflection under moving proof rolling equipment) and how these specifications apply to structural steel. Specifically, will these performance specifications apply to the first lift of Category 1 material to be placed over the steel members or will the performance specification apply to the 'final' lift of Category 1 material. If the intent is to apply to the 'final' lift, how many intervening lifts will be compacted before the performance criteria is applied?

Response: Although overlength structural steel (i.e., Category 3 structural steel) will not be disposed in the OSDF, this comment applies to other Category 3 material. The requirements that there be a maximum of 2-inch tire ruts and no visible deflection under the moving proof rolling equipment apply to the final lift of material placed over the Category 3 items. The number of intervening lifts will vary depending on the size of the item being placed. However, each intervening lift of Category 1 material placed around the Category 3 item must be compacted to at least 90 percent standard Proctor dry density.

Action: No action.

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18) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 8.5.1 Pg.: 8-5 Line: 9-17 Code: C
Original Comment No.: 17
Comment: What is the lateral extent to which Category 4 wastes can be placed?

Response: As written currently in the IMP Plan, there are no lateral restrictions to Category 4 material other than it may not extend into zones where the material is unsuitable. After reconsideration, it appears prudent to restrict Category 4 placements to a 100-foot square similar to Category 2. Note that no more than 2 lifts of Category 4 material may occupy any vertical plane through the OSDF.

Action: The following sentence has been added after the first sentence of Section 8.5.1, "The lateral extent of each Category 4 material placement shall not exceed 100 ft. (30 m)."

19) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 8.5.2 Pg.: 8-5 Line: 21-32 Code: M
Original Comment No.: 18
Comment: According to lines 1-4 of page 5-2, Category 4 materials include green wastes from clearing, stripping, and grubbing operations. These types of operations would likely generate tree root balls which provide specific landfill disposal concerns. Are root balls expected to be disposed at the OSDF, and if so, what are the associated procedures/practices for placement and compaction?

Response: Tree root balls may be disposed in the OSDF if they meet (or can be reduced to) lift thickness restrictions of Category 4 materials. A statement will be added to the IMP Plan that clarifies this.

Action: The following sentence was added after the second sentence in Section 8.5.1, "Green waste shall be reduced in size, as necessary, to enable placement in the lift."

20) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 8.6.4 Pg.: 8-7 Line: 16 Code: C
Original Comment No.: 19
Comment: The Ohio EPA agrees that the primary criterion regarding the placement of asbestos-containing material (ACM) is the protection of the health of the OSDF personnel (page 8-6, line 25). We also agree that in the case of relatively straight lengths of pipe covered with ACM, the pipes should be placed in straight trenches similar to those used for the disposal of double-bagged asbestos. Our comment concerns the disposal of other shapes. The Plan states that these would be placed in a 20 foot square excavation but provides no additional information such as separation distance between pieces, length limitations on individual pieces, and number of pieces in the same excavation. Please add a section to clarify these issues.

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Response: Agreed. Because the pipe will be not more than 10 feet long, the length of the pipe should not pose a problem for placement in the 20-foot excavation. However, as the comment states, the placement of pipes that are not straight should be addressed. The paragraph will be amended to include restrictions that pipe shall be cut to lengths allowing placement in the 20-ft excavation and be positioned such that soil in-filling around the pipes is possible. The number of pipes placed in an excavation is limited to that number that can be placed such that soil in-filling around the pipes is possible.

Action: The end of the first paragraph of Section 8.6.4 has been revised to read, "Pipe should be cut to lengths allowing placement in the 20-foot excavation and be placed such that soil can be filled around pipes. The number of pipes placed in the 20-foot excavation is limited to that number that can be placed such that soil in-filling around the pipes is possible. The ACM-insulated piping shall be placed in the lower half of the excavation."

21) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 8.6.5 Pg.: 8-7 Line: 43 Code: E
Original Comment No.: 20
Comment: The word "precondivity" is a typo and should be replaced with "preconditioning".

Response: Agreed. The word "precondivity" was a typographical error and will be replaced with the word "preconditioning."

Action: "Precondivity" has been replaced with "preconditioning."

22) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 8.6.5 Pg.: 8-9 Line: 7-15 Code: C
Original Comment No.: 21
Comment: What are the compaction procedures, if any, for high moisture content sludges?

Response: Sludges shall be dewatered, dried, or mixed with soil to a condition that they can be compacted with conventional equipment. Compaction procedures are as stated in Section 8.6.5.

Action: No action.

23) Commenting Organization: Ohio EPA Commentor: HSI GeoTrans, Inc.
Section: 9.3 Pg.: 9-1 Line: 30 Code: M
Original Comment No.: 22
Comment: The discussion of fugitive emissions is restricted solely to airborne particulates. Organic and inorganic vapors are not addressed. According to Table 4-1, which presents waste acceptance criteria for the OSDF, there are potentially acceptable wastes which could be composed of highly volatile organic and inorganic

compounds which could present a health risk to site workers. For example, material could be hauled and disposed at the OSDF (for up to 25 years) which could contain up to 5.6 percent mercury, 10 percent toxaphene and 39 percent chloroethane. {The 1989 OSHA PEL for Mercury vapor TWA is 0.05 mg/m^3 [skin] alkyl compounds: C 0.1 mg/m^3 [skin]. The 1989 OSHA PEL for toxaphene TWA is 0.5 mg/m^3 [skin]. The OSHA TWA for chloroethane is 1000 ppm.} Are there vapor phase fugitive emissions policies and procedures specifically developed for the OSDF? If so, they should be cited in this section. If not, all references to "fugitive emissions should be modified to "fugitive particulate emissions" or to "fugitive dusts".

Response: The intent of Section 9.3 was to discuss the control of fugitive dust, not organic and inorganic vapors. This distinction will be clarified. Any potential organic or inorganic vapor emissions, and the possibility of occupational exposure, will be evaluated with all other related safety-related issues during the development of project health and safety requirements and documentation. A new safety evaluation will be performed for each phase of OSDF construction.

We anticipate that good work practices and engineering controls, including fugitive dust control measures, will maintain worker exposure levels of non-radioactive contaminants below OSHA/ACGIH limits and exposures to airborne radioactive contaminants below the occupational exposure limits established by 10 CFR 835.

Action: Throughout the IMP Plan, references to "fugitive emissions" have been changed to "fugitive dust."

24) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 11.1 Pg.: 11-1 Line: 7 Code: C
Original Comment No.: 23
Comment: Is the use of the term "surfactants" appropriate in this context? We suggest using the term "crusting agent".

Response: Agreed. The term "surfactants" will be replaced with "crusting agents."

Action: The term "surfactants" was revised to "crusting agents."

25) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 11.2 Pg.: 11-1 Line: Code: M
Original Comment No.: 24
Comment: Provide additional detail on the proposed use of the East Impacted Stockpile for winter cover.

1. Will the run-off from the seasonal cover all be directed to the leachate collection system (LCS) or will some of the run-off flow outside the LCS? It is our understanding that some of the anchoring system for the liner will be located outside the area that drains into the LCS and that these flows would enter the OSDF diversion ditches.

2. Will erosion control surface matting be used or will crusting agents be used or will a combination of the two methods be used to control erosion? It is our understanding that pine tar-based crusting agents have been successfully employed at several locations including the Active Fly Ash Pile, but we have no information regarding the durability or longevity of these crusting agents.

3. The design objectives of the runoff control system are not clear. Line 29 says that flow should infiltrate in to the LCS in an unimpeded manner and line 30 states that inspection should confirm that 'excessive sedimentation' is not occurring. Is the design objective to allow sediment to expeditiously drain into the LCS or is the design objective to remove the sediment prior to infiltration into the LCS? The former objective is not consistent with the design criteria of the LCS and the later objective is not consistent with the 'excessive sedimentation' inspection.

   Has the use of a temporary riser been considered for the directing the run-off into the LCS? This riser could incorporate the design elements used in the previously approved sediment basins. It could tie in at the bottom with the granular drainage layer and would be designed to be removed at the start of the construction season. After removal, the drainage layer and protective layer would be replaced/repaired to the original design.

4. Please provide detailed plans for the seasonal cover final grade and design. We anticipate that design elements will include fugitive dust and erosion control as well as run-off control. If any areas will need protection from winter freezing that are outside of the area that drains into the LCS, these areas should be noted. The use of the East Stockpile should be limited to those areas that drain into the LCS. Areas that drain outside of the LCS which need to be protected should be covered with non-impacted material.

Response:

1. Run-off from the seasonal cover will either infiltrate the cover material and be collected by the leachate collection system or be pumped from the surface of the runoff catchment area to the site stormwater system. Both of these options direct the runoff from the impacted seasonal cover to the AWWT for treatment. The anchor trench, which is outside the limits of impacted material, will be covered with clean clay and the runoff from that area will flow through the sediment basin to the FEMP stormwater diversion ditches for discharge to Paddys Run.

2. Current plans are to use a crusting agent in combination with silt fences to control erosion on the seasonal cover for Winter 1997-1998. It is felt that this will adequately control erosion for this winter season. If excessive erosion is observed, additional measures will be taken to control erosion. The specific crusting agent to be used has not been chosen, but pine tar-based crusting agents (and/or other similar types of crusting agents) will be evaluated.

3. The impacted runoff catchment area has been sized to allow infiltration to the LCS and storage for the design storm runoff. It is expected that some sediment may accumulate in the impacted runoff catchment area. The intent of the inspection is to ascertain that the impacted runoff catchment area is functioning to allow infiltration of impacted runoff into the LCS. If sediment is impeding the infiltration, it should be removed. The use of a temporary riser was considered but not selected because of potential damage to the liner system associated with installation, maintenance, and removal of the riser.

4. The final grade of seasonal cover will depend on the amount of impacted material placed in a construction season. Detail plans for seasonal cover and final grade cannot be anticipated. However, a maximum slope of 3.5H:1V has been established and as-built drawings will be provided to U.S. EPA and Ohio EPA at the end of the construction season. Impacted material will not be placed outside of the cell liner system or in a manner which allows runoff to bypass the LCS. All low-permeability soil (clay) layers have been designed with freeze-protection cover (see Details 32 and 33 on Drawing G-27 and Details 34 and 35 on Drawing G-28 of the OSDF Final Design).

Action:

1. The following sentence has been added to the beginning of the third paragraph of Section 11.2, "The runoff from the seasonal cover will be collected in the leachate collection system (LCS) or managed as impacted stormwater."

2. No action.

3. The sentence "The inspection shall also confirm that excessive sedimentation is not occurring." has been deleted.

4. No action.

Ohio EPA Comments on the Impacted Materials Placement Quality Assurance Plan

26) Commenting Organization: Ohio EPA Commentor: OFFO
Section: 1 Pg.: Line: Code: general
Original Comment No.: 25

Comment: The Quality Assurance Plan should be re-written or amended to address the documentation needed and the procedures to be followed to comply with the design criteria listed in Section 2.11.2.5 of the final Design Criteria Package for the OSDF (Revision 0). The re-write should address the following:

1. Placement to avoid differential settlement
2. Protection of the liner and cover system
3. Sequence of placement to minimize the area of exposed impacted material
4. Placement of material to achieve homogeneous large-scale mechanical properties
5. Placement of material to avoid preferential migration pathways for leachate

The Plan should address especially how 'as-placed' records of previously placed materials will be used to direct the placement of subsequent materials. For example the Plan should specifically state how the placement of trenches for asbestos waste will be tracked, the records kept to document these locations, and the procedures used to place subsequent trenches in succeeding lifts. Similarly, the procedures used to establish that no asbestos trenches are dug into Category 2 through 5 materials should be clearly spelled out. The Plan should address how wastes are surveyed in, how elevations are determined, how lift records are maintained and should also contain an exhaustive list of placement restrictions.

Response: The IMP QA Plan is intended to provide assurance that impacted material has been disposed in accordance with the IMP Plan. The IMP Plan is intended to address the criteria of the DCP. For example,

(i) differential settlement is controlled through placement and compaction in accordance with the procedures of the IMP Plan;
(ii) the liner and cover systems are protected through use of a protective layer, select impacted material layer, and contouring layer;
(iii) area of exposed impacted materials are minimized by construction of the final cover system as soon as practical (for instance, the OSDF Phase II Construction will include the plans for final cover system construction over Cell 1);
(iv) homogeneous, large-scale mechanical properties are achieved in the impacted material through placement and compaction of the various material categories in accordance with the IMP Plan; and
(v) control of preferential migration pathways is achieved through material isolation, separation, and surrounding with Category 1 material as described in the IMP Plan.

As-placed plans will be consulted before placement of Category 2 through 5 materials. All lateral and vertical placement restrictions will be followed for each type of material. These restrictions are detailed in the IMP Plan. Section 6.6.3 of the IMP Plan "As-Placed Plans" will be clarified and an example of asbestos waste placement will be added.

Action: Section 6.6.3 has revised as follows:

"The subcontractor shall be aware that the CQC Consultant will maintain plans showing the locations of placement of all categories of impacted materials. The plans will provide the OSDF cell, grid and lift alphanumeric identifier for each load of Category 2 through 5 material placed in the OSDF (referenced to the load manifest number), the category of material in the load, and other information. The CM (this person is responsible for contractual purposes; see next paragraph for actual operations) will use these plans to decide where subsequent loads of Category 2 through 5 waste can be placed. For example, the Subcontractor will not be allowed to compact multiple lifts of Category 4 (organic) impacted material on top of each other so as to avoid creating a compressible zone in the OSDF that could induce future differential settlements in the OSDF final cover system.

As an example, if a load of double-bagged asbestos comes to the OSDF for disposal, the construction engineer will first consult the as-placed plans to determine a suitable place to dig a trench for disposal (as required by Section 8.6.3 of this Plan). Consultation of the as-placed plans will ensure that placement restrictions are followed and that the trench for asbestos disposal will not be excavated into anything except Category 1 material. Following identification of a suitable location, the trench will be excavated, the double-bagged asbestos placed, and the trench backfilled and compacted according to requirements. The construction engineer will then note the location (grid and elevation), depth, and length of the trench on the as-placed plans."

27) Commenting Organization: Ohio EPA Commentor: OFFO
Section: A.3.4 Pg.: A.3-2 Line: 35 Code: E
Original Comment No.: 26
Comment: It appears that there is a word missing here which changes the meaning of the sentence. Add the word "that" between "tanks" and "cannot".

Response: Agreed. This error will be corrected.

Action: The sentence has been revised to read, "Tanks that cannot be placed such that void space can be filled...."

28) Commenting Organization: Ohio EPA Commentor: OFFO
Section: A.3.4 Pg.: A.3-3 Line: 1 Code:
Original Comment No.: 27
Comment: The dimensions of large steel pipe mentioned here ("Large steel pipes that cannot be placed in a lift not greater than 18 in (450 mm) but which can be placed individually such that the highest part of the pipe is not more than 4 ft. (1.2 m) above the ground will be classified as Category 3 items (individual items).") is in conflict with the 3rd bullet on page 4-1 which states "the maximum thickness of irregularly shaped metals or other components of a building superstructure or finish component shall be 18 in. (450 mm)".

Response: Agreed. The text will be revised to delete the mention of Category 3 pipes.

Action: Section A.3.4 has been revised to read, "Steel pipes which can be spread or placed into a lift no higher than 18 in. (1.5 ft.) will be classified as Category 2 materials (*en masse* placement). Piping with a nominal diameter of 12 in. (300 mm) or greater will be split in half before disposal."

29) Commenting Organization: Ohio EPA Commentor: OFFO
Section: A.4.1 Pg.: A.4-1 Line: 21 Code: C
Original Comment No.: 28
Comment: It is unclear what the sentence "These material types will be compacted prior to establishing their parameters" means. What are the parameters that are being referred to?

Response: Agreed. The sentence is extraneous and will be deleted.

Action: The sentence has been deleted.

30) Commenting Organization: Ohio EPA Commentor: OFFO
Section: A.4.1 Pg.: A.4-1 Line: Code:
Original Comment No.: 29
Comment: The section "Placement and Compaction Quality Control" is unclear. We understand the use of a Proctor test for to establish optimal moisture content of soils for satisfactory compaction. We also know that this test is dependent on soil types and that two different soils will produce different Proctor curves. It is unclear is how Proctor tests will produce usable data on the highly variable nature of the soils that will be received at the OSDF.

Response: Soils will tend to come from limited areas at any one time. It is anticipated that upon excavation, placement, and spreading, the soils will become somewhat blended and that average Proctor test results will be applicable. The CQC Consultant will be responsible for accomplishing Proctor tests as required to define the compaction characteristics of the soils as they are placed in the OSDF. The IMP QA Plan will be clarified to state that the CQC Consultant will perform a Proctor for representative materials being placed.

Action: The following sentence was added to the end of the first paragraph of the "Placement and Compaction Quality Control" subsection of Section A.4.1, "Additional Proctor testing will be performed with each change in material type."